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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 682,730	10/10/2001	Robert A. Morris	98-1949-P	3632

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EXAMINER

NGUYEN, DANNY

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 10/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/682,730

Applicant(s)

MORRIS ET AL.

Examiner

Danny Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 10 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

1. Claims 1-3, 5-6, 9-11, 17-21, and 23 are rejected under 35 U.S.C. 102(a) as being anticipated by Wilson-Jones et. al. (USPN 6,330,140).

Regarding to claims 1, 9, 10, Wilson-Jones et. al. disclose that a method of protecting multiple feeder circuits from a shared electrical distribution system in an electric motor (see fig. 2) comprises a bypass line (29), the bypass line being configured to separable contacts (movable and fixable contacts 16) in each of feeder circuits (drive stage 2) between a load side and a line side of the distribution system; bypass switches (transistors 4, 5, and 6, see col. 2, lines 60-62) in the bypass line, the bypass switches being configured to couple each of the feeder circuits in the bypass line; a fault lockout protection controller coupled to the bypass line to detect the existence of the fault condition on the load side before closing the contacts. Note that the fault lockout protection controller is the subroutine performed by the micro controller unit 3; controlling the fault lockout protection controller (the micro controller unit 3, see col. 2, lines 5-14) to prevent closure of the contacts upon detection of the fault condition; an electric motor (electric motor 1).

Regarding to claims 2, 11, 23, Wilson-Jones et. al. disclose that the distribution system comprises the steps of providing a test voltage (generated by resistor 30, see fig. 2) to the load side to induce a test current in the load side the test voltage being less than voltage in line side; sensing the test current (provided by resistor 19) to provide a sensed signal indicative of an electrical characteristic of the test current; comparing the sensed signal to a predetermined value (accepted value, see abstract).

Regarding to claim 3, Wilson-Jones et. al. further disclose that the method of fault protection circuit comprises the steps of calculating a load side current (analog to digital converter contained in the micro controller unit 3) and comparing the load side current to the predetermined threshold (see abstract).

Regarding to claims 5 and 6, Wilson-Jones et. al. disclose the protection circuit comprises an impedance device (resistor 30) to reduce voltage in the bypass line to below a voltage of line side.

Regarding to claim 17, Wilson-Jones et. al. disclose a circuit breaker (see fig. 2) comprises an over-center toggle mechanism (controlled a open position and closed position of the contacts 16); the separable contacts connects and disconnects a load side to a line side; a fault lockout protection controller detects the existence of the fault condition on the load side before closing the contacts. Note that the fault lockout protection controller is the subroutine performed by the micro controller unit 3 and including means for preventing closure of the contacts upon detection of the fault condition (the micro controller unit 3, see col. 2, lines 5-14).

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Regarding to claims 18 repeats the limitations of claims 1 and 17, therefore, rejected accordingly.

Regarding to claim 20, Wilson-Jones et. al. disclose the protection circuit breaker (see fig. 2) comprises means for actuating (see col. 4, lines 5-25) the bypass switches (4,5,6).

Regarding to claim 21 repeats the limitations of claims 1 and 17, therefore, rejected accordingly.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4, 7, 8, 12, 13, 15, 16, 24-26, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson-Jones et. al. in view of Gibbs (USPN 6,208,120).

Regarding to claims 4, 12, 24, Wilson-Jones et. al. disclose all limitations of claims 1 and 9 except for having a silicon controlled rectifier in the bypass line to ram-up voltage in the bypass line. Gibbs discloses the circuit breaker (see fig. 1) comprises a silicon-controlled rectifier (12). It would have been obvious to one having skill in the art at the time invention was made to modify the system of Wilson-Jones et. al. with a silicon controlled rectifier as taught by Gibbs in order to monitor current and voltage within a desired values (see Gibbs, col. 5, lines 2-36).

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Regarding to claims 7, 13, 16, 25, Gibbs discloses the protection of circuit breaker (see fig. 2) comprises a current transformer (82) about the bypass line (42) for sensing the current in the line.

Regarding to claims 8, 15 and 26, Gibbs discloses the protection of circuit breaker (see fig. 2) a generator (36) connected to a voltage transformer (84) to generate a voltage signal to the load side.

3. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson-Jones et. al. in view of Lee (USPN 4,924,342). Wilson-Jones et. al. disclose all limitations of claim 9 except for having a silicon controlled rectifier which includes an impedance device being positioned in the bypass line for reducing voltage in the line. Lee discloses the circuit breaker (see fig. 2) discloses a silicon-controlled rectifier (13), which includes an impedance device (resistor 16) being positioned in the bypass line (power line 5) for reducing voltage in the line. It would have been obvious to one having skill in the art at the time invention was made to modify the system of Wilson-Jones et. al. with a silicon controlled rectifier including the impedance as taught by Lee in order to protect a short circuit occurring in the load.

4. Claims 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson-Jones et. al. in view of Purkayastha (USPN 5,657,193). Wilson-Jones et. al. disclose all limitations of claims 17 and 21 except for having means preventing the closure of the contacts selected from the group of an under voltage protection module and a blocking solenoid module. Purkayastha discloses the protection of circuit (see fig. 2) comprises a means for preventing the closure of the contacts (12) selected from the

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group of an under voltage protection module (ECM 13) and a blocking solenoid module (45). It would have been obvious to one having skill in the art at the time invention was made to modify the system of Wilson-Jones et. al. with the ECM and the solenoid module to prevent the closure of the contacts as taught by Purkayastha in order to interrupt the circuit upon the occurrence of over-current.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Matsko et. al. (U.S. Patent No. 5,936,817) disclose that a circuit breaker with separable contacts protect the circuitry from an over-voltage.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (703)-305-5988. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703)-308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9318 for regular communications and (703)-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

D. N.

D.N.

September 28, 2002


KIM HUYNH
PRIMARY EXAMINER

9/30/02